

FIGURE 2

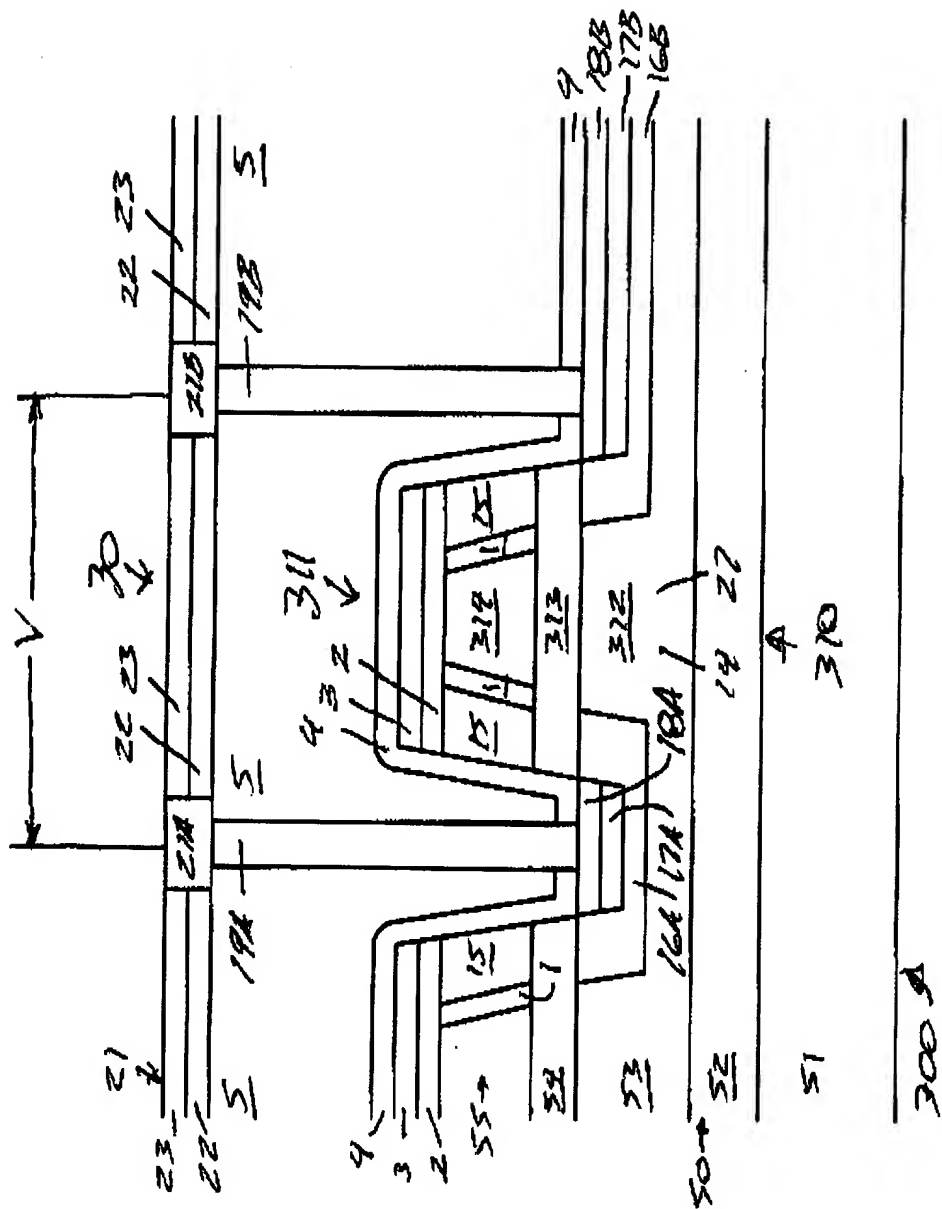
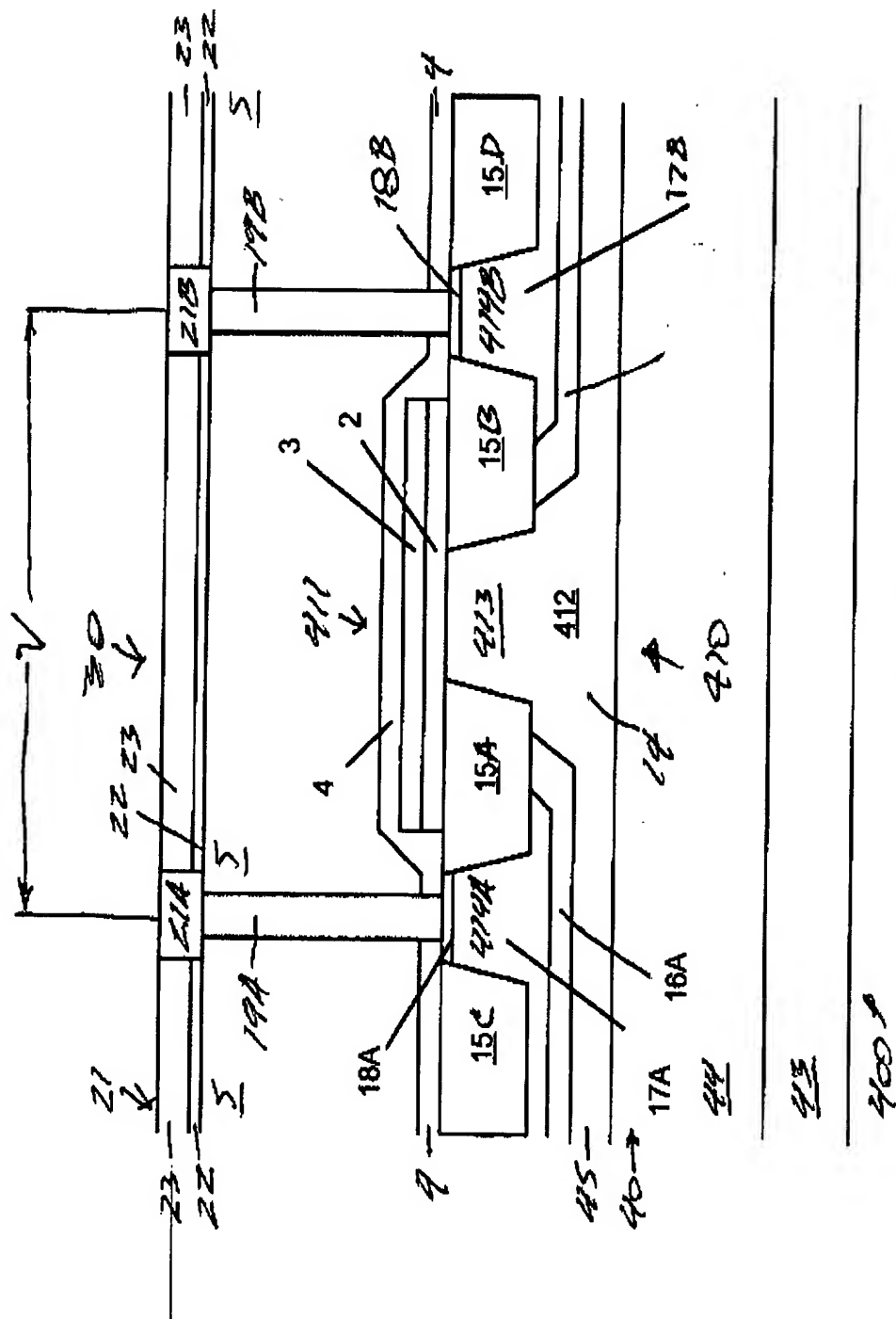


FIGURE 3



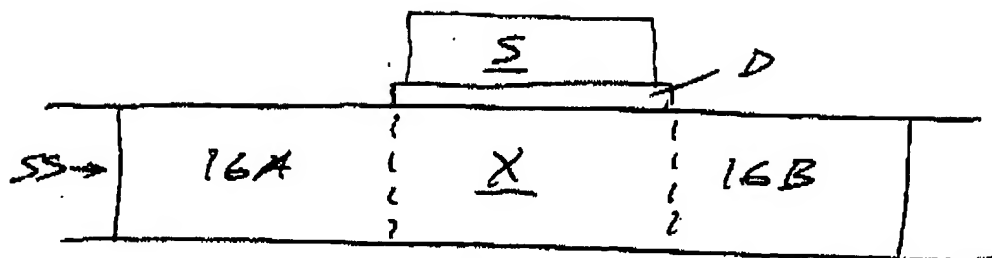


FIGURE 5

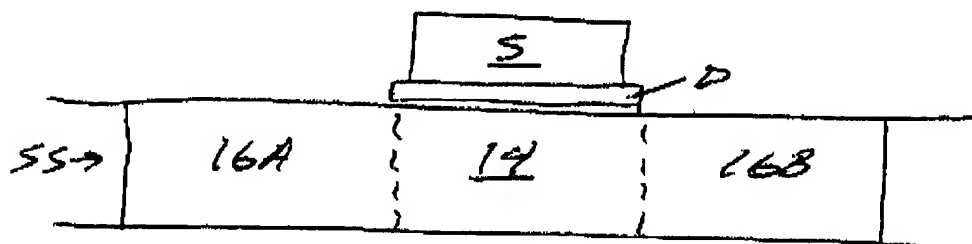


FIGURE 6

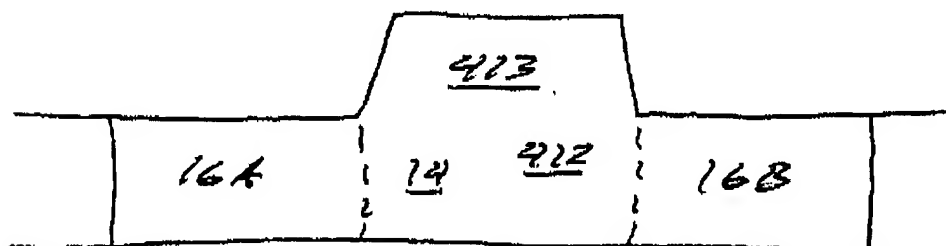


FIGURE 7

ACTIVE WAVEGUIDE DIODE REGIONS					
REGIONS	DOPANT DENSITY	SIZE OF REGIONS	POLARITY	MASKS for Figs. 1, 2, 3	MASKS for Fig. 4
Silicon slab	Light (13)	Slab		None	None
16A	Medium	$16A > 17A$	$16A = 17A$	SA or External	External
16B	Medium	$16B > 17B$	$16B = 17B$	SA or External	External
17A	Heavy			SA or External	External
17B	Heavy			SA or External	External

**FIGURE 8**

ACTIVE WAVEGUIDE DIODES		
DIODE TYPE	POLARITY OF REGIONS	
	14	16A, 17A, 16B, 17B
PIN (30A)	None	$16A = 17A \neq 16B = 17B$
PNN (30B)	N preferred	$16A = 17A \neq 16B = 17B$
DIBL (30C)	N or P	$14 \neq 16A = 17A = 16B = 17B$

**FIGURE 9**



